



U.S. Environmental Protection Agency Great Lakes National Program Office (GLNPO) Significant Activities Report

On the Web at:
www.epa.gov/greatlakes

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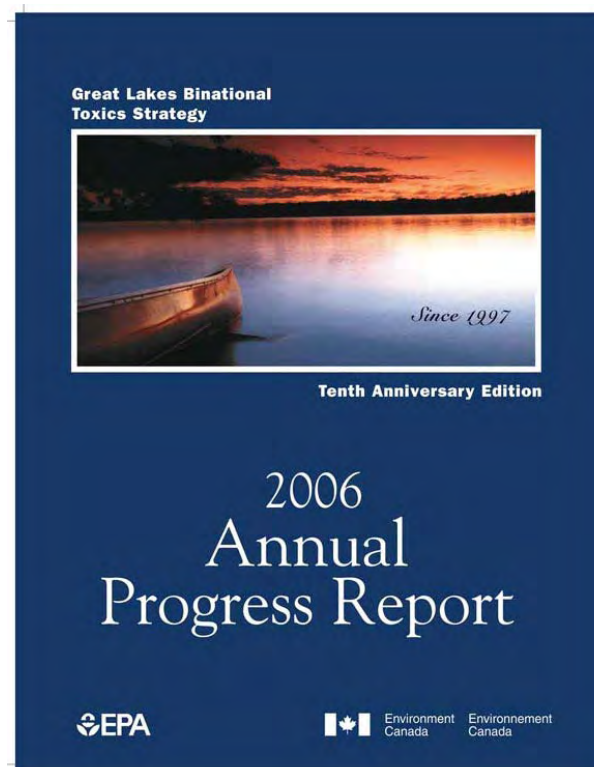
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POLLUTION PREVENTION



10th Anniversary Progress Report
of the Great Lakes Binational Toxics Strategy

10th Anniversary of Binational Toxics Reduction Effort

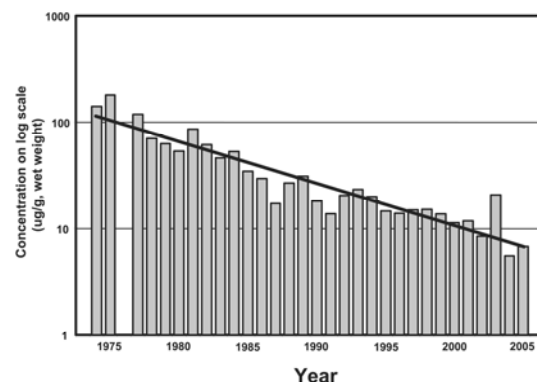
A Ten Year Anniversary Great Lakes Binational Toxics Strategy (GLBTS) Stakeholder Forum was held in Chicago on May 23, 2007. Presentations were made by U.S. and Canadian Substance Workgroup Chairs, alongside stakeholders from industry, environmental non-governmental organizations and States, for mercury, PCBs, dioxin, HCB and PAHs. Presentations detailed progress made over the past ten years to reduce toxic substance use and discharges to the Great Lakes and featured some of the most effective multi-stakeholder projects coming out of the GLBTS Forum to date. Presentations were also made on long range transport modeling studies, sediment remediation of toxicants in Areas of Concern, and an update on the North American Commission for Environmental Cooperation Sound Management of Chemicals program (SMOC), which is seeking closer cooperation with the GLBTS. A dinner, hosted by Environment Canada, was held the evening of May 23 at the South Shore Cultural Center to acknowledge Stakeholder contributions to the GLBTS over the past ten years. Tracy Mehan, former AA for the Office of Water, delivered a Keynote Speech, and also included comments by Michael Murray, National Wildlife Federation, Claude Andre LaChance, of Dow Canada, and several Canadian dignitaries that focused on the importance of the GLBTS to the continued improvement of the Great Lakes as well as the challenges of the future. Forum and Dinner presentations may be found at <http://www.epa.gov/glnpo/bns/10thann.html>.

On that same day, the Great Lakes Binational Toxics Strategy released its 2006 Annual Progress Report, which presents progress toward the goal of virtually eliminating persistent toxic substances such as mercury, PCBs and dioxin from discharging into the Great Lakes environment. In 1997, EPA and Environment Canada established 17 source and emissions reduction goals for the United States and Canada. Over the past 10 years, both governments (with the help of state, provincial, tribal and local governments and stakeholders from industry, academia, environmental and community groups) have worked together to reduce the use and release of targeted toxic substances. To date, 12 of the 17 goals have been met, and the rest are well advanced. The

report discusses the significant voluntary projects of the Strategy, such as the burn barrel outreach campaign and the wood stove exchange campaign, some of which have been adopted nationally on both sides of the border. The report also presents trends of these substances in gull eggs and fish as well as open water, air and sediment. Overall, significant environmental improvements have been realized for legacy pollutants in the Great Lakes. Looking forward, new challenges are presented by emerging substances of concern, such as flame retardants. The U.S. - Canadian Great Lakes Binational Toxics Strategy Tenth Anniversary Edition 2006 Annual Progress Report is available at <http://binational.net/bns/2006>.

Over the next 2 days, a workshop was held for stakeholders to consider future directions for the GLBTS. Over 70 people were in attendance. Stakeholders were asked to consider future work of the GLBTS and included group sessions targeted at specific questions of how the program may need to evolve to be able to address needs including the identification and reduction of additional persistent toxic contaminants in the Great Lakes basin. Details may be found at the web site above.

(Contact: Ted Smith, 312-353-6571, smith.edwin@epa.gov)



Graph from GLBTS 10th Anniversary Progress Report showing the decline in PCBs in the eggs of herring gulls from Snake Island in Lake Ontario

Earth Day Pharmaceuticals Collection a Whopping Success

People turned in more than a ton of unwanted pills, powders, and liquid medicines - including an estimated \$500,000 worth of narcotics - during the Earth Keepers Earth Day collection on April 21, 2007 from 9am-noon. The annual Earth Keepers Clean Sweep focused this year on drugs that are typically just flushed down the toilet and into our waterways. An estimated 2,000 people dropped off their own unwanted medications from their own medicine cabinets as well as cast-off medicines from relatives and friends. Some also brought personal care products such as soaps, shampoos and sunscreen. Studies have detected traces of pharmaceuticals such as birth control hormones, antidepressants, and antibiotics in waterways downstream from wastewater treatment plants. Their effects are largely unknown, but scientists are concerned that they may be linked to reproductive and development problems in aquatic wildlife.

(Contact: E. Marie Wines, 312-886-6034, wines.emarie@epa.gov)

North American Workshop on Sound Management of Chemicals

GLNPO's Ted Smith traveled to Monterrey, Mexico to participate in a workshop hosted by the North American Commission for Environmental Cooperation Sound Management of Chemicals (SMOC) on April 16-19, 2007. The SMOC is a trilateral agreement between Canada, the U.S. and Mexico to work together cooperatively on persistent bioaccumulative toxic substances in North America. Ted Smith and Environment Canada's Danny Epstein gave a presentation on the Great Lakes Binational Toxics Strategy (GLBTS) program, including a short portfolio of projects that were of interest to the SMOC. These included the burn barrel campaign, the wood stove campaign, the tire pile campaign, and PCB financial software. Mexican officials expressed an interest in obtaining copies of these materials and having them translated into Spanish. A follow-up meeting is planned with SMOC officials in Chicago to explore further how the GLBTS and SMOC programs can work together more closely.



Container of drugs collected on April 21, 2007 by EarthKeepers Earth Day collection (photo courtesy of Earth Keepers)

(Contact: Ted Smith, 312-353-6571, smith.edwin@epa.gov)

RESEARCH and MONITORING State of the Great Lakes 2007 Report Released

The State of the Great Lakes 2007 Highlights Report was released on June 7, 2007 at the International Joint Commission Great Lakes Biennial Meeting and Conference at the University of Illinois - Chicago. English and French versions are available online at: <http://www.binational.net>.

Every two years, the Great Lakes community reports on the condition of the Great Lakes ecosystem at the State of the Lakes Ecosystem Conference. The last conference was held on November 1-3, 2006 in Milwaukee, Wisconsin. The State of the Great Lakes 2007 Highlights is a plain-language summary of the information provided in the more detailed indicator reports and the information presented at the biennial conference.

(Contact: Paul Bertram, 312-353-0153, bertram.paul@epa.gov)

2007 Spring Water Quality Survey

The 2007 Spring water quality survey of all five Great Lakes was completed on April 24th. The annual survey by the *R/V Lake Guardian* and its crew and scientists began in Lake Michigan on March 31st. Samples were taken for chemical in-



The R/V *Lake Guardian* cuts a path through the ice leaving Sault Ste. Marie, Michigan on the 2007 Spring Survey of the Great Lakes

dicators of eutrophication, standard water quality parameters, and biological components of the ecosystem, including phytoplankton, zooplankton, benthos and *Mysis relicta*. Analysis of the samples began at the completion of the survey. Additional samples, including a transect beginning near Harbor Beach, Michigan and moving offshore, were taken in support of the Lake Huron Cooperative Monitoring effort. This survey continued GLNPO's long-term monitoring program that was begun in 1983.

(Contact: Glenn Warren, 312-886-2405, warren.glenn@epa.gov)

Special Effluent Study Concludes

The Spring intensive sampling campaign for the project "Pharmaceuticals and Personal Care Products (PPCPs), Hormones, and Alkylphenol Ethoxylates (APEs) in the North Shore Channel of the Chicago River" concluded on Monday, April 23, 2007. Over 200 effluent and stream samples were collected since late February 2007. This study represents a broad partnership among U.S. EPA's Great Lakes National Program Office, Central Regional Laboratory, Region 5, Headquarters and Office of Research and Development (Cincinnati, Ohio); the U.S. Geological Survey; U.S. Department of Agriculture, St. Cloud State University, the Illinois Department of Natural Resources, Baylor University, and the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC).

(Contacts: Elizabeth Murphy, 312-353-4227, murphy.elizabeth@epa.gov or Todd Nettesheim, 312-353-9153, nettesheim.todd@epa.gov)

In a related matter, GLNPO and Illinois-Indiana Sea Grant staff participated in a study session convened by the Commissioners of the Metropolitan Water Reclamation District of Greater Chicago on May 17, 2007. The purpose of the study session was to discuss the effect of pharmaceuticals in the water environment. GLNPO staff shared details about the North Shore Channel Pharmaceutical and Personal Care Product study and Illinois-Indiana Sea Grant staff distributed brochures describing the "Proper Disposal of Unwanted Medicines: A Resource for Action in Your Community" toolkit.

(Contacts: Elizabeth Murphy, 312-353-4227, murphy.elizabeth@epa.gov; Beth Hinchey Malloy, 312-886-3451, hinchey.elizabeth@epa.gov; or Ted Smith, 312-353-6571, smith.edwin@epa.gov)

Dry Cargo Sweepings Study

On May 1, 2007, the R/V *Lake Guardian* docked in Cleveland after sampling shipping lanes for dry cargo sweepings on the lake bottom in Lake Erie. The study is a cooperative effort with the U.S. Coast Guard. Coal, taconite pellets (iron ore) and limestone are the main dry cargo components expected in the samples. The data collected will be used in an Environmental Impact Statement to support any rulemaking on sweepings disposal.

(Contact: Paul Horvatin, 312-353-3612, horvatin.paul@epa.gov)

HABITAT PROTECTION, RESTORATION, SUSTAINABILITY Hog Island-Newton Creek Draft Restoration Plan Workshop

The Hog Island-Newton Creek third workshop to introduce the "Hog Island and Newton Creek Draft Ecological Restoration Master Plan" (also called the habitat restoration blueprint) was held May 1, 2007 from 3 PM to 6 PM at the Bong



Hog Island, Superior, Wisconsin
(photo courtesy of Biohabitats)

Memorial Center in Superior, Wisconsin. Representatives from the Wisconsin Department of Natural Resources, Douglas County, City of Superior, Citizens Action Committee (CAC), Murphy Oil, and others attended the meeting. GLNPO contractor Biohabitats developed the draft plan with input from stakeholders and outlined each section of the draft plan at the meeting. On the following morning, GLNPO staff, Biohabitats staff, and two members of the CAC walked through the site with draft master plan in hand to visualize the extent of recommended actions.

The draft plan covers the project background; site history; plan development process; project vision and guiding principles; existing conditions of Newton Creek, Hog Island, and the Hog Island Inlet; potential ecological threats; regional ecological reference sites; and, recommends goals, objectives and actions to restore the area. The four goals include improving water and sediment quality, ecosystem conservation and protection for ecologically-sensitive habitat areas, restoring selected ecosystem components, and creating recreational and environmental stewardship activities. Each objective under the goals lists an ecological trajectory as well as a rationale for the actions under it. Each action lists procedures, reference conditions, size of the action area, implementation timeline, range of estimated costs, permitting requirements, and pre-implementation needs. Thirty-three actions, from projects to be commenced in the first year to efforts recommended over the next 11 years, will be initiated after master plan adoption. The end point is completion of ecosystem restoration.

The community has been asked to comment on the draft master plan by June 1st. Biohabitats is scheduled to finalize the plan by July 1st.

The draft master plan, along with all background materials gathered by Biohabitats, can be viewed online at: <http://www.biohabitats.com/hogisland/index.php>.

(Contacts: Karen Rodriguez, 312-353-2690, rodriguez.karen@epa.gov or Danielle Green, 312-886-7594, green.danielle@epa.gov)

Green Infrastructure and Transportation

GLNPO's Judy Beck participated in the International Conference on Ecology and Transportation in Little Rock, Arkansas on May 20-25, 2007. Judy Beck and Kimberly Majerus, an Ecologist and GIS Analyst, of the Federal Highways Administration's Resources Center gave a presentation in the plenary session of the conference, titled "Bridging the Gaps, Naturally," dealing with the many ways to minimize the impacts on wildlife and the environment in the course of building transportation routes. Beck and Majerus outlined the special ecology of the Great Lakes and the impacts on it as well as efforts like the Great Lakes Water Quality Agreement and the Great Lakes Regional Collaboration that are currently dealing with those issues. The next conference is being planned for Minnesota in 2009, so Judy Beck offered to help connect the organizers with the Great Lakes environmental community.

(Contact: Judy Beck, 312-353-3849, beck.judy@epa.gov)

SEDIMENT REMEDIATION

Ashtabula River Dredging

Accelerates

Dredging operations for 2007 for the Ashtabula River Great Lakes Legacy Act sediment remediation project commenced on April 1, 2007 with system shakedown and limited dredging. Full dredging started on April 11th. After dredging approximately 65,000 cubic yards of sediments during the 2006 dredging season, the project part-

ners made several significant upgrades to the water treatment system in an effort to increase production in 2007. Through July 14th a total of 284,000 cubic yards have been dredged in 2007 bringing the project total to over 351,000 cubic yards. System improvements made during the winter shutdown have significantly increased production rates. Additionally, the dredging subcontractor has been given approval to bring a second, 8" dredge to the site to perform sediment sweeping operations address thin layers of sediments left behind by the larger, 12" dredge, and allow the 12" dredge to maintain its production schedule. The 8" dredge is capable of utilizing the Vic-Vac Suction System, a technology developed by the dredging subcontractor to attempt to address residual sediments over hard native river bottoms. Current projections indicate that dredging for the GLLA project will be completed by the end of September 2007.

(Contact: Scott Cieniawski, 312-353-9184, cieniawski.scott@epa.gov)

Tannery Bay Cleanup Resumed

Sediment remediation on the Tannery Bay / St. Marys River Legacy Act remediation project resumed on June 9, 2007. The project involves removal of 40,000 cubic yards of sediment contaminated with chromium and mercury via mechanical dredging and off-site disposal. A total of 8,700 cubic yards of contaminated sediments was removed during the first season of dredging from September 28, 2006 to November 3, 2006. Access dredging resumed on June 9, 2007, removing over 4,000 cubic yards of clean sediments to create a channel to the zone of contaminated sediments. As of July 14, 2007, an additional 14,100 cubic yards of contaminated sediments had been removed, for a total of 22,800 cubic yards removed to date, or 57% of the estimated total volume to be removed. Dredging is scheduled to be completed in August, 2007.

(Contacts: Marc Tuchman, 312-353-1369, tuchman.marc@epa.gov; Susan Boehme, 312-353-4383, boehme.susan@epa.gov; Ajit Vaidya, 312-353-5713, vaidya.ajit@epa.gov)



Aerial view of Tannery Bay on the St. Marys River at Sault Ste. Marie, Michigan

Sediment Sampling Season in Full Swing

On April 2-5, 2007, a basin-wide sediment sampling event was conducted in the Duck and Otter Creeks in the Maumee River Area of Concern by GLNPO contractor SulTRAC, in cooperation with the Duck and Otter Creeks Partnership. The purpose of the sampling was to fill in data gaps from previous sampling events, identify sediment hot spots for possible future remediation, and obtain data which will be useful for the Partnership to conduct its baseline ecological and human health risk assessment for the watershed. Sediment grab samples were collected at roughly 16 stations in Duck Creek and 26 stations in Otter Creek. The samples will be tested for PCBs, PAHs, Metals, Grain Size, TOC, Oil and Grease, AVS/SEM, and sediment toxicity. Samples are currently being analyzed by U.S. EPA Region 5 Central Regional Laboratory (CRL), as well as Severn Trent Laboratories, and American Aquatic Testing.

(Contact: Ajit Vaidya, 312-353-5713, vaidya.ajit@epa.gov)

On June 12th, Mike Alexander of the Michigan Department of Environmental Quality (MDEQ) and ORISE Associate Jessica Winter conducted

follow-up sediment sampling at the site of the Black Lagoon remediation project completed under the Great Lakes Legacy Act in 2005. Following dredging, a sand and gravel cap had been placed over the sediments in the area as part of the project. The survey measured the amount of new sediment that had accumulated over the cap and collected surface sediment samples where new sediments were found. They found little or no sediment deposition at nine of the fourteen stations sampled within the Black Lagoon. In the five remaining sites, all located in the northwest corner of the lagoon, sediment depth averaged six inches. This sediment had no oily sheens and appeared to be newly deposited silt from upstream. Analyses of samples from these five locations by MDEQ's laboratory showed that metals levels have been reduced to approximately half of pre-remediation levels and are currently at or below the cleanup project target levels.

(Contacts: Jessica Winter, 312-353-3212, winter.jessica@epa.gov; or Marc Tuchman 312- 353-1369, tuchman.marc@epa.gov)

GLNPO's 32-foot sediment sampling research vessel, the *R/V Mudpuppy* was busy sampling sediments around the Great Lakes.

Between April 11th and 20th, 2007, the *R/V Mudpuppy* was in Ashtabula, Ohio to assist in the collection of sediment samples for a wide variety of projects. Sediment samples were collected on April 12th to 14th to identify sources of clean sand for habitat mitigation work within the Ashtabula Area of Concern, evaluate the extent of PCB contamination in downstream reaches of the river, and evaluate sediment chemistry for optimization of water treatment plant operations. Approximately 25 sediment cores were collected during this portion of the survey.

On April 16th to 20th, the *Mudpuppy* assisted U.S. EPA's Office of Research and Development (ORD) in collecting sediment profile photos using the Sediment Profiling Imaging (SPI) camera and surficial sediment samples using an innovative sediment sampler from the Las Vegas ORD Lab. ORD is evaluating the two technologies for potential use in their dredging effectiveness study on the Ashtabula River. The SPI camera is de-



View of the Grand Calumet River

signed to take a profile picture of the top 6 to 12 inches of sediment. The camera proved to be very effective, taking over 60 photos in the river. The innovative sampler was able to collect approximately 15 surficial samples from the study area.

(Contact: Scott Cieniawski, 312-353-9184, cieniawski.scott@epa.gov)

Then the *Mudpuppy* traveled to Lake Superior to sample sediments in the St. Louis River Area of Concern (AOC). From April 30th to May 18th, the *Mudpuppy* collected approximately 80 core samples and 125 ponar surface sediment samples in the Wisconsin waters of the St. Louis River AOC. Sediments will be tested for a suite of chemical, biological and physical parameters. Analytical results should be available in September. Results will be used to guide decisions on the need for a feasibility study and evaluation of potential remedial activities. This work was conducted under the Great Lakes Legacy Act along with the Wisconsin Department of Natural Resources, the non-federal sponsor on the project.

(Contact: Alie Muneer, 312-886-8031, muneer.alie@epa.gov)

New Grand Calumet River Great Lakes Legacy Act Project Agreement Signed

In April 26, 2007, a Project Agreement was signed by the U.S. EPA, the Indiana Department of Environmental Management (IDEM), and the

Indiana Department of Natural Resources (IDNR). This agreement is to take the selected remedy for remediation and develop the final design plans and specifications, general provisions, and special requirements necessary for sediment remediation at the West Branch Grand Calumet River (WBGCR) between Columbia and Hohman Avenues. This AOC represents one of the most heavily industrialized areas in the United States, contains steel mills and heavy manufacturing sites associated with the steel industry, petroleum-related land uses, packaging operations, chemical processing plants, and other industrial land uses. The WBGCR has received inputs of contaminants from various sources over the past century. In general, sediments in the river have elevated concentrations of heavy metals, PCBs, Semi-volatile organics (primarily PAHs), and pesticides (e.g., DDT and degradation products). This phase of the project is scheduled to be completed in early 2008 with the possibility that the project may eventually evolve into a remediation project. This will occur if the project successfully meets U.S. EPA's selection criteria identified in the Great Lakes Legacy Act Implementation Rule, and is agreed to by U.S. EPA, IDEM and IDNR.

(Contact: Scott Ireland, 312-886-8121, ireland.scott@epa.gov)

Ruddiman Creek Remediation Project Honored

The Michigan Chapter of the American Public Works Association (APWA) honored the Great Lakes Legacy Act Ruddiman Creek and Pond Sediment Remediation Project with an award for "2007 Project of the Year" in the category of: "Environment \$10 Million to \$100 million Project." The award was handed out at the annual Michigan APWA conference on May 24th in Boyne City, Michigan. The co-awardees for this project were U.S. EPA GLNPO, the City of Muskegon and the Michigan Department of Environmental Quality. This award follows an award for the project last year by the APWA Midwest Michigan Branch.

(Contacts: Susan Boehme, 312-353-4383, boehme.susan@epa.gov or Marc Tuchman, 312-353-1369, tuchman.marc@epa.gov)



Senator Carl Levin speaks at Ellias Cove Dedication

Great Lakes / Detroit River Success Story: From Black Lagoon to Ellias Cove

A celebration was held on June 18th at Meyer Ellias Park in Trenton, Michigan along the Trenton Channel of the Detroit River to hail the successful remediation of the Black Lagoon by renaming it Ellias Cove. Scientists, educators, federal and state government agencies and others participated in the event celebrating the restoration of the Black Lagoon, the first project completed under the Great Lakes Legacy Act. The embayment had been contaminated with oil, mercury, lead, zinc and PCBs until it was cleaned up by the efforts of U.S. EPA's Great Lakes National Program Office and the Michigan Department of Environmental Quality.

(Contacts: Russell Kreis, 734-692-7615, kreis.russell@epa.gov or Rosanne Ellison, 734-692-7689, ellison.rosanne@epa.gov)

OUTREACH/EDUCATION

GLLA Presentation to Michigan Association of Environmental Professionals

On May 16, 2007, GLNPO's Marc Tuchman, Mike Alexander from the Michigan Department of Environmental Quality and Dave Bowman from the U.S. Army Corps of Engineers gave a presentation entitled: "Great Lakes Legacy Act: Black Lagoon Sediment Clean-Up Project" to the Michigan Association of Environmental Professionals. The presentation focused on all aspects of the project including: site history, site characterization, implementation and disposal of the contaminated sediments.

(Contact: Marc Tuchman, 312-353-1369, tuchman.marc@epa.gov)

Raising Invasive Species Awareness

Staff from GLNPO and Illinois-Indiana Sea Grant staffed a "Habitattitude" information booth at the Earth Month Kick-off in Daley Plaza in downtown Chicago, Illinois on April 18, 2007. The purpose of the booth was to increase awareness about the threats posed by invasive species and the importance of citizen participation in stopping the spread of invasive species resulting from the accidental and intentional releases by the home aquarium and water garden industry. Over 100 people were given informational products. Further information about Habitattitude is available on the Web at: <http://www.habitattitude.net/>.

(Contact: Chiara Zuccarino-Crowe, 312-886-6793, zuccarino-crowe.chiara@epa.gov)

Learn Not to Burn

U.S. EPA Region 5, GLNPO and Illinois-Indiana Sea Grant staff published an article on the "Learn Not to Burn: A Guide for Reducing Trash Burning in Your Community" resource kit in the latest issue of LINK, the newsletter of the Great Lakes Regional Pollution Prevention Roundtable. The article can be viewed at: <http://www.glrppr.org/newsletter/LINKSpring2007.pdf>.



The "Learn Not to Burn" resource kit educates against the use of backyard burn barrels

(Contacts: Susan Boehme, 312-353-4383, boehme.susan@epa.gov or Beth Hinchey Malloy, 312-886-3451, hinchey.elizabeth@epa.gov)

Kids' Clean Water Celebration

The annual Kids' Clean Water Celebration was held in Peoria, Illinois on April 22 to 23, 2007. A GLNPO booth staffed by ORISE Associate Jessica Winter and her sister Alison Winter (with help from Illinois-Indiana Sea Grant outreach specialists) educated elementary and junior high school students on the issue of medicines in the waterways. By playing a game and viewing a poster, students learned about the sources of pharmaceutical chemicals to the environment and their effects on aquatic animals. Students, teachers, and parents also learned to avoid disposing of unneeded medicines by flushing them down the drain, and to take them back to pharmacies or to household hazardous waste collections instead. Over a hundred students from Peoria and surrounding areas visited the GLNPO booth.

(Contact: Jessica Winter, 312-353-3212, winter.jessica@epa.gov)

Pollution Prevention at IKEA

GLNPO and Illinois-Indiana Sea Grant were invited by IKEA's environmental specialist to take part in their April Environmental Awareness Month activities. On April 7th (Schaumburg IKEA) and April 14th (Bolingbrook IKEA), Illinois-Indiana Sea Grant's Susan Boehme and Elizabeth Hinchey Malloy and ORISE Associate Jessica Winter staffed a booth in the store that provided customers with information about invasive species, disposal of unwanted medicines, electronics recycling, and GLNPO and U.S. EPA Region 5 environmental educational materials. The Illinois-Indiana Sea Grant Water Wheel game was also used to teach the public about issues facing Lake Michigan.

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Pennsylvania State Assm. of Township Supervisors Annual Meeting

Illinois-Indiana Sea Grant staffed a booth at the 85th Annual State Convention of the Pennsylvania State Association of Township Supervisors in Hershey, Pennsylvania on April 22-24, 2007. The purpose of the convention is to provide township officials with information to help them better serve their constituents. The booth highlighted two resources for communities on the issues of Unwanted Medicine Disposal and Alternatives to Backyard Burning. Approximately 150 township supervisors from 38 counties visited the booth and asked for information.

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ORISE Associate Melissa Simon demonstrates how runoff contributes to water pollution

Hands-on Activities at Duneland School

On May 18, 2007, Karen Rodriguez and ORISE Associates Jackie Adams, Jeff May, Chrissy McConaghy and Melissa Simon traveled to the Duneland School in Chesterton, Indiana to educate students and teachers on Great Lakes ecology and environmental problems. 6 teachers and 100 fifth-grade students participated in an afternoon of hands-on activities that were provided by Region 5's Office of Public Affairs (OPA). Using interactive games and models, GLNPO representatives taught lessons on the connection between wetlands, land-use, point- and non-point-source pollution, and the water cycle. In a question and answer session following the activities, students inquired about cleaning up industrial pollution, working from the EPA, and how to take pro-environmental measures in their own lives. GLNPO and OPA also provided printed outreach materials to the class. Since the EPA's visit, the students have incorporated their new knowledge into a segment on pesticides they are pursuing in science class. Karen Rodriguez has offered to continue to assist the school by connecting them to other resources in environmental education.

(Contact: Karen Rodriguez, 312-353-3690, Rodriguez.karen@epa.gov)

Women in Science and Engineering

Girls E-Mentoring in Science, Engineering and Technology (GEM-SET) mentors from GLNPO (ORISE Associates Chiara Zuccarino-Crowe and Christine McConaghy and Illinois-Indiana Sea Grant's Elizabeth Hinchey Malloy) spoke to over 100 middle school students and teachers from the Young Women's Leadership Charter School in Chicago, a school designed to inspire young women to excel in math, science, and technology, on April 25, 2007. They presented four seminars which included an overview of Great Lakes monitoring programs that GLNPO conducts with the research vessels *Lake Guardian* and *Mudpuppy*, a summary of the mentors' environmental science backgrounds, and tips for how students can find environmental internships, resources, and other science opportunities. Students were also encouraged to contact GEM-SET mentor Jackie Adams to learn more about the outreach she conducts from the *R/V Lake Guardian* during the GLNPO Spring and Summer surveys. The GEM-SET program is administered by the University of Illinois at Chicago.

(Contact: Chiara Zuccarino-Crowe, 312-886-6793, zuccarino-crowe.chiara@epa.gov)

National Environmental Partnership Summit in New Orleans

Staff from IL-IN Sea Grant and GLNPO presented pollution prevention outreach materials at a booth at the National Environmental Partnership Summit in New Orleans on May 7-10, 2007. Beth Hinchey Malloy, Susan Boehme, and Jessica Winter distributed resource kits on safe disposal of households' unneeded medicines and methods for reducing household trash burning. They spoke with conference attendees from across the country on these issues and promoted the upcoming EPA/Sea Grant toolkit on electronic waste. The audience ranged from state experts on these issues to individuals who had never heard of these concerns before.

P2 Toolkits on Display at Michigan Recycling Coalition Annual Conference

U.S. EPA GLNPO and Illinois-Indiana Sea Grant provided Michigan DEQ partners with CD copies

of the recent resource toolkits, *Learn Not to Burn* and *Proper Disposal of Unwanted Medications* to distribute at their display at the Michigan Recycling Coalition Annual Conference, May 15-17, 2007 in Novi, Michigan. Many municipal recycling and household hazardous waste coordinators attended the conference. The 2007 conference theme was "A Conference of Solutions."

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Mercury Fish Advisory Protocol Finalized

A Great Lakes Consortium drawn from Members of the Council of Great Lakes Governors' Great Lakes Fish Advisory Work Group finalized the "Protocol for Mercury-based Fish Consumption Advice: An addendum to the 1993 Protocol for a Uniform Great Lakes Sport Fish Consumption Advisory."

Mercury is a ubiquitous contaminant in fish. All the Great Lake States issue fish consumption advice based on mercury levels in fish. Therefore a consistent approach for issuing these advisories will be helpful in providing advice to the public. Development of a uniform Great Lakes protocol for mercury-based fish advisories also advances the objectives and supports the goals of many Great Lakes programs and initiatives for shared resources including: the U.S. Policy Committee's Great Lakes Strategy, State of Lakes Ecosystem



A Great Lakes Walleye

Conference (SOLEC) indicators, International Joint Commission (IJC) recommendations and the Great Lakes Regional Collaboration.

This protocol represents a consensus of the individual workgroup participants based on group discussions and review. Participants did not participate as official policy representatives of their state agencies but as knowledgeable and experienced individuals. Tribal and federal government representatives participated as observers. This document has not been officially reviewed or adopted by any participant's State Health or Environmental Agency. The protocol has been presented to Environmental Council of the States (ECOS) and The Association of State and Territorial Health Officials (ASTHO).

The protocol is available online at: http://www.dhfs.state.wi.us/eh/Fish/FishFS/2007Hg_Add_Final_05_07.pdf.

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***Lake Guardian* at Dedication of Schooner Harbor at Milwaukee's Discovery World**

On Sunday, June 10, 2007, The *R/V Lake Guardian* hosted over 400 visitors eager to learn about the EPA's work in assessing and improving the ecological health of the Great Lakes. Six GLNPO staffers traveled to Milwaukee, Wisconsin to lead tours of the ship as part of an outreach event hosted by the recently renovated Discovery World science museum. The *Lake Guardian* was on display as the first vessel to dock at the museum's new Schooner Harbor, which was dedicated that same day. Throughout the day, GLNPO representatives Beth Hinchey-Malloy, Sue Boehme, and Todd Nettesheim and ORISE Associates Melissa Simon, Chiara Zuccarino-Crowe, and Jackie Adams explained the ship's sampling equipment, laboratories, and living quarters to a stream of curious visitors. The *Guardian's* entire crew was also present to share their expertise on piloting, engineering, and maintaining the vessel. GLNPO members spoke on the topics of air quality, water quality, sediments, benthic or-



ORISE Intern Jackie Adams leads tour of *R/V Lake Guardian* at Discovery World, Milwaukee, Wisconsin

ganisms, aquatic invasive species, contaminants, and other challenges facing the Great Lakes. They shared with the public that the EPA regularly monitors the ecological state of the lakes in order to inform the policy actions necessary for solving environmental problems. The *Lake Guardian's* visitors provided a meter of public understanding on Great Lakes environmental issues. Questions centered on wreckage diving, ballast water, fluctuating fish populations, and the safety of Lake Michigan as a source of drinking water.

GLNPO's Melissa Hulting and ORISE Associate Chiara Zuccarino-Crowe also volunteered as educators aboard Wisconsin's flagship, the *S/V Denis Sullivan*, as part of a "Lake Watch Expedition" on Lake Michigan. Approximately 25 participants of all ages learned about Great Lakes ecology during a three-hour voyage on this replica of a 19th century three-masted cargo schooner. The *Sullivan* stopped at two stations to sample water clarity and depth and had four on-board learning stations that gave participants a hands-on look at plankton, water quality, fish adaptations, and benthos.

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LAKEWIDE MANAGEMENT PLANS

Lake Superior LaMP Task Force Meeting at Isle Royale

The Lake Superior Lakewide Management Plan (LaMP) Task Force met from June 19th to 21st at Isle Royale National Park on Isle Royale, Michigan in Lake Superior. Participation in the event was high, bringing together senior managers of 10 different state, provincial, tribal and federal agencies from the U.S. and Canada. Issues discussed and presented included critical LaMP projects such as the Lake Superior Critical Chemical Milestones Report, the Realtors Outreach Binder, and the draft Aquatic Invasive Species Prevention Plan. The group also participated in a number of field sessions around the island and heard presentations from researchers and agency staff on Isle Royale issues on nearshore areas of the Lake Superior basin. Site visits and topics included: survey methodology of coaster brook trout population; the effects of climate change on critical ecosystems; moose/wolf predator/prey dynamics; air deposition impacts on megafauna; aquatic invasive species and a “no ballast water exchange zone” in the park; and marine pathways and disaster planning for surrounding waters. The Task Force also discussed a Parks Canada initiative for establishing a National Marine Conservation Area that would protect one-third of the Lake Superior coastline. With new issues emerging in the Great Lakes, the Lake Superior Task Force meeting provided opportunities for increased collaboration between U.S. and Canadian agencies.

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An Isle Royale scene
(photo courtesy of U.S. Geological Survey)

We welcome your questions, comments or suggestions about this month's Significant Activities Report. To be added to or removed from the Email distribution of the Significant Activities Report, please contact Tony Kizlauskas, 312-353-8773, kizlauskas.anthony@epa.gov.